

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of making a differential housing assembly having a housing including a ring gear integrally formed therein and a housing cover, said method comprising the steps of:

forging a conical frustum from a steel rod;

deforming the frustum between upper and lower die halves of a tool to produce a primary housing preform having an annular rim; [[and]]

machining the primary housing perform to form a first external journal surface and an internal spherical surface;

[[forging]] machining a plurality of teeth in the annular rim defining the ring gear; and heat treating and finish machining the primary housing perform to final dimensions.

2. (Currently Amended) The method of [[Claim]] claim 1 including the step of forming a blind hole in the primary housing perform and piercing the blind hole to form a hole.

3-9. (Cancelled)

10. (Currently Amended) The method of [[Claim 4]] claim 2 wherein the step of machining includes drilling and reaming lubrication oil holes into the primary housing preform.

11-12. (Cancelled)

13. (Currently Amended) The method of [[Claim]] claim 1 including the step of forging a housing cover preform and machining the housing cover perform to an intended final shape, including a second external journal surface.

14-20.

21. (Currently Amended) The method of [[Claim 20]] claim 13 wherein the step of assembling includes installing a subassembly comprising bevel gears, bevel pinions, washers, and a pinion shaft inside the housing.

22. (Currently Amended) The method of [[Claim 20]] claim 21 wherein the step of assembling includes inserting the housing cover within the housing.

23. (Cancelled)

24. (Currently Amended) The method of [[Claim 20]] claim 21 wherein the step of assembling includes fitting ball [[bearings]] bearing assemblies onto said first and second journal surfaces onto [[into journals formed in]] the housing and housing cover.

25. (Currently Amended) A differential housing assembly comprising:

a housing comprising a bell shaped body extending between a cylindrical first end and an opposing annular second end having a ring gear, said housing integrally formed from a steel rod [[thereon]].

26. (Currently Amended) The differential housing assembly of [[Claim]] claim 25 wherein the annular second end includes an internal spherical surface formed thereon for receiving bevel gears, pinions and washers.

27. (Currently Amended) The differential housing assembly of [[Claim]] claim 25 wherein the housing includes a journal surface and shoulder formed on the cylindrical first end for receiving a bearing.

28. (Currently Amended) The differential housing assembly of [[Claim]] claim 25 wherein the housing includes an internal cylindrical surface formed on the cylindrical first end for allowing passage of an axle shaft.
29. (Currently Amended) The differential housing assembly of [[Claim]] claim 28 wherein the housing includes a circular surface formed perpendicular to the cylindrical surface.
30. (Currently Amended) The differential housing assembly of [[Claim]] claim 29 wherein the housing includes semi-circular recesses formed normal to the circular surface for receiving a bevel pinion shaft.
31. (Currently Amended) The differential housing assembly of [[Claim]] claim 25 further including a housing cover having a cylindrical first end and a spherical second end.
32. (Currently Amended) The differential housing assembly of [[Claim]] claim 31 wherein the spherical second end of the housing cover is inserted within the annular second end of the housing for attachment thereto.
33. (Currently Amended) The differential housing assembly of [[Claim]] claim 31 wherein the spherical second end includes an internal spherical surface formed thereon for receiving bevel gears, pinions and washers.
34. (Currently Amended) The differential housing assembly of [[Claim]] claim 31 wherein the housing cover includes an internal cylindrical surface formed on the cylindrical first end for allowing passage of an axle shaft.